



Silicone, alumina, partially-stabilized-zirconia, or the like, can be used as the flexible base material 2.

In the Claims:

Please amend claims 1, 2, 7, 12, 13, 16, 17, 19 and 20 pursuant to 37 C.F.R. § 1.121(c)(1)(i) as set forth in the "clean" version set forth below. Entry is respectfully requested. A version with markings to show the changes made pursuant to 37 C.F.R. § 1.121(c)(1)(ii) is attached hereto as Appendix A.

1. (Amended)

A heat controller for an object comprising:

a composite material comprising:

a base material radiating a large amount of heat at a high-temperature

phase; and

a phase-change substance overlying said base material having insulation properties at a high-temperature phase, metallic properties at a low-temperature phase, radiating a large amount of heat at a high-temperature phase, radiating a small amount of heat at a low-temperature phase, and having a high reflectivity in the thermal infrared light region at a low-temperature phase.

2. (Amended) A heat controller according to claim 1, wherein said phase-change substance comprises a thickness in the range from about one to about thirty microns.

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7. (Amended) A heat controller according to claim 1, wherein said base material is selected from a group consisting of silicone, alumina, and partially stabilized-zirconia.

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12. (Amended) A heat controller according to claim 1, wherein said object includes an electronic circuit used in a space vehicle, including a man-made satellite and a spaceship.

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13. (Amended) A method for controlling heat in an object comprising:

providing a composite material on said object, said composite

material formed of a base material radiating a large amount of heat at a high-temperature

phase; and

providing a phase-change substance on said base material having insulation properties at a high-temperature phase, metallic properties at a low-temperature phase, radiating a large amount of heat at a high-temperature phase, radiating a small amount of heat at a low-temperature phase, and having a high reflectivity in the thermal infrared region at a low-temperature phase.

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17. (Amended) A method for controlling heat according to claim 13, wherein said base material is selected from a group consisting of silicone, alumina and partially stabilized-zirconia.

19. (Amended) A method for controlling heat according to claim 13, wherein said composite material is affixed to a surface of said object, either directly or via an intervening heat-conductive substance.

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20. (Amended) A method for controlling heat according to claim 13, wherein said object includes an electronic circuit used in a space vehicle, including a man-made satellite and a spaceship.